

REMARKS

Claims 1-7, 9-15, and 17-21 are now in this application. Claims 1-18 are rejected. Claims 8 and 16 are cancelled herein. New claims 19-21 are added. Claims 1-7, 9, 12, 13, 17 and 18 are amended herein to clarify the invention by incorporating subject matter of claims 8 and 16. Other formal matters are attended to that were not addressed by the Examiner and accordingly are considered unrelated to substantive patentability issues.

Claims 1-7, 9-15 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by the Watt reference. Claims 8, 16 and 18 are rejected as obvious over the Watt reference in view of the Shigeru reference under 35 U.S.C. §103(a). The applicant herein respectfully traverses these rejections.

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based

on the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP §706.02(j) "Contents of a 35 U.S.C. §103 Rejection". It is respectfully submitted that the cited combination of references fail to establish obviousness because both the motivation to make the combination and the reasonable expectation of success are not provided by the cited references.

In the present claimed invention, subject matter of original claims 8 and 16 is incorporated into the independent claims which now reflect in those original claims. Recited is a feature that provides for a character that jumps from and leaves a ground surface while the shadow of such a moving character is formed on the ground surface by deforming the hidden-surface vertices. This produces an accurate shadow representative of the character. In particular, but not limiting, the present embodiment is directed to a shadow formed by a jumping snowboard.

In making rejections of claims 8 and 16 the Examiner has cited two references, not just the Watt reference, but also the Shigeru reference. The Shigeru reference shows a formation of a shadow and in the paragraph 0002 on column 1, it mentions about the formation of a "realistic" shadow of a character. However although the term "realistic" is used, it appears to be used in comparison to a primitive type shadow formation or no shadow formation at all when one views the figures. Fig. 8 of Shigeru shows a shadow model (basic shadow object) that is a simple co-centric circle with 3 different shading darkness. The reason for the use

of such a simple shadow model is described in the paragraph 0008 or 0014 as reducing the processing load for creation of a shadow. However, the use of the shadow model described in Shigeru for a character of a slightly more complex configuration would produce a shadow that bears practically no resemblance to the more complex character. Thus, the shadow model described in Shigeru is only applicable to a simplified character and is not for a character of complexity where the level of accuracy is as high as required by the present application.

Indeed, Fig. 18 of Shigeru shows the formation of the shadow corresponding to a left and a right foot of the character when only one of them is lifted from the ground. Furthermore, Fig. 16 shows the variation of the shadows of the object OBJ according to the angles of the light source. Moreover, Fig. 14 shows the shadows in top view with the variation of the top view angle of the light source. As is obvious from these drawings, the shadow formed by Shigeru is basically a deformed form of the *shadow model* as shown in Fig. 18. As clearly seen from Fig. 16, in particular, there is no shadow corresponding to the head or body of the object OBJ (character). With regard to Fig. 20, the shadows cast have very little resemblance to the body shape and are equally primitive.

The level of primitive shadow formation technique of the Shigeru reference is clearly inconsistent with the accuracy level required by the Watt reference, which basically aims to generate an accurate shadow of an animation character.

deform

a shadow

Accordingly, it is respectfully submitted that one seeking to provide shadows consistent with the animation accuracy of the Watt reference would not be motivated to combine these two references to arrive the present invention.

Furthermore, it is respectfully submitted that the references do not provide one of ordinary skill in the art the requisite reasonable expectation of success in making the combination of the shadow formation technique of Shigeru with that of the animation techniques of the Watt reference because the realism level fo Shigeru is incompatible with the realistic shadow formation technique described in Watt reference.

Furthermore, claims 1, 9, 17, 18 and new claim 19 recite a further feature in that the character as a whole rises above and leaves a ground and the shadow is produced having a distorted character shaped on the ground for the character above the ground.

Finally, the disclosures in Watt reference do not concern the processing load to make a reasonably accurate shadow formation in the game system. Thus, what is lacking in Watt is the consideration of the technique for the actual implementation of the accurate shadow formation that can be acceptable and appreciated by the game players with the portable game devices. Accordingly, the claims are now directed to "a video game system." As such, the advanced animation and rendering techniques of Watt which do not consider maintenance of

the calculation load for the formation of the shadow would provide little incentive for use in a game system.

Thus, it is respectfully submitted that the rejected claims are not obvious in view of the cited references for the reasons stated above. Reconsideration of the rejections of the claims and their allowance are respectfully requested.


Claims 19-21 are added. Claim 19 includes the feature of the hidden surface magnification data portion. Claim 20 recites a hidden-surface parallel movement data portion and is dependent from claim 19. Claim 21 recites that the hidden-surface magnification data portion stores the magnification rates in X, Y, and Z-axis in 3D space. It is respectfully submitted that the features recited in claims 19 to 21 are not disclosed in either the Watt or Shigeru reference.

One further independent claim in excess of three is/are added. Accordingly, please charge the fee of \$86.00 to Deposit Account No. 10-1250.


Applicant respectfully requests a one month extension of time for responding to the Office Action. Please charge the fee of \$110.00 for the extension of time to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited. Please charge any deficiency or credit any overpayment to Deposit Account No. 10-1250.

Respectfully submitted,
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